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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/564,066

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EXAMINER

EGGERDING, MATTHEW THOMAS

ART UNIT

PAPER NUMBER

1763

MAIL DATE

DELIVERY MODE

05/04/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/564,066	Applicant(s) BLATTNER ET AL.	
	Examiner Matthew Eggerding	Art Unit 1763	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2006 (Prelim Amend).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 16-19 is/are rejected.
- 7) ☒ Claim(s) 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>20060110</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Allowable Subject Matter

Claim 15 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 10, 11, and 17-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 18 recite a "means for depositing a substrate", while claim 6 provides a further limitation by stating that "the means for depositing comprises inwardly and upwardly directed projections, by means of which a substrate can be deposited above a ring section of the storage element." A means for depositing in the realm of this invention is usually a robot or other means for placing the substrate on the storage element. In the context of this application and these specific claims the term "means for depositing" is indefinite because the limitation is more aptly construed as a "means for receiving," especially in light of the further limitation in claim 6.

Claim 1 further provides for a "stacking area" for each of the storage elements. This term is vague and indefinite because the meaning for a "stacking area" is unknown. The substitute specification provides that "each of the storage rings 10 stands with a

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stacking area directly on the respective storage ring 10 arranged below it.” (p. 14, lines 1-2). However, it is unclear how the stacking area is utilized for “arranging the respective storage element within a stack of storage elements” as provided in the claim. For the sake of examination, the “stacking area” will be interpreted to mean the area of a storage element in contact with another storage element in a stacked formation.

Claim 10 recites the limitation “clean room means” in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

Claim 11 discloses a “predetermined discharge of a gas” in line 2. This term is vague and indefinite because it can be interpreted that either the amount of gas or the actual discharge of gas is predetermined.

Claim 17 recites the limitation “disk-shaped substrates” in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 19 recites the limitation “for approaching a tool” in line 3. This term is vague and indefinite because the tool is approaching and the storage element; the storage element is not approaching the tool.

Claim 19 provides that “a first relative motion is carried out.” However, this claim is vague and indefinite because it is unknown as to the motion that is performed or the relative degree of the motion.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

A. Claims 1-4, 8, 12-14, 16-17 and 19

Claims 1-4, 8, 12-14, 16-17 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 2001291759A to Abe et al. ("Abe").

For claim 1, Abe teaches a device for storing plate-shaped substrates, the device comprising: a plurality of consecutive storage elements (1) in a stacked direction, each of which is provided for accommodating at least one substrate (21); a means for receiving a substrate provided for each of the storage elements and a stacking area associated with each of the storage elements. (Fig. 1, 2; Detailed Description para. [0027]-[0028]).

For claim 2, Abe teaches the storage elements can be stacked directly on one another. (Fig. 2; para. [0027]).

Regarding claim 3, Abe teaches the storage elements can be handled at their stacking area for producing an increased distance between two consecutive storage elements. (para. [0036]).

For claim 4, Abe discloses a relative motion can be carried out between the two storage elements for producing an increased distance. (para. [0036]).

For claim 8, Abe teaches the storage elements arranged on top of one another form an at least laterally enclosed space. (Fig. 1).

For claims 12 and 13, Abe teaches means for increasing stability and/or positioning accuracy (1a and 1b) of superimposed storage elements and a centering means (1a and 1b) formed on one of the storage elements, which centering means

cooperates with a centering means of a consecutive storage element in the stacked direction for increasing the stability. (Fig. 2; para. [0027]).

For claim 14, Abe teaches a tool (10a and 10b) for producing a relative motion between storage elements, which tool is provided with a first contact surface (2a) for contacting an upper storage element and a second contact surface (2b) for contacting a lower storage element, whereby motion means are provided (5), with which a relative motion can be carried out between at least one of the storage elements and at least one of the contact surfaces, in order to increase the distance between the storage elements. (Fig. 1, 2; Abstract; para. [0027]-[0028]).

For claim 16, Abe teaches a relative mobility of the two contact surfaces. (Abstract).

Regarding claim 17, Abe teaches the tool is movable in a plane parallel to surfaces of the substrates. (para. [0047]).

B. Claim 18

Claim 18 is rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 6,141,314 to Umesaki et al. ("Umesaki").

Umesaki teaches a transport container for transporting substrates in a lockable space, the transport container comprising: stacked storage elements, on each of which a substrate can be arranged, a means for receiving a substrate provided for each of the storage elements and a stacking area associated with each of the storage elements, with each stacking area being provided for arranging the respective storage element within a stack of storage elements. (Fig. 1-2; col. 14, lines 1-28).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

A. Claims 5 and 19

Claims 5 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abe.

Abe teaches storage trays (1) for use with flat-panel displays, and also teaches wafers. (para. [0012]-[0013]).

However, Abe does not explicitly teach rings.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to utilize storage rings with the teachings of Abe because a mere change in shape is a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration was significant. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). Here, other than

matching the shape of the storage member to the shape of the corresponding substrate, there is no significance to utilizing a tray as opposed to a ring.

For claim 19, Abe teaches causing a tool comprising two contact surfaces to approach a specific storage element within a stack of separable storage elements, carrying out a first relative motion by contacting the specific storage element with the first contact surface and contacting an adjacent storage element with the second contact surface, and carrying out a second relative motion that results in an increasing distance between the two storage elements. (para. [0027]-[0041]). Further, Abe discloses disk-shaped substrates with regard to the background of the invention. (para. [0002]).

However, Abe does not explicitly teach disk-shaped substrates outside of the background of the invention.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to utilize a disk-shaped substrate with the teachings of Abe for the reasons discussed above for claim 5.

B. Claims 6 and 7

Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abe as applied to claim 1 above, and further in view of US Patent No. 5,752,609 to Kato et al. ("Kato").

Abe does not teach the means for receiving comprises inwardly and upwardly directed projections, by means of which a substrate can be received above a ring section of the storage element.

Kato teaches the means for receiving comprises inwardly and upwardly directed projections (52A, 52C), by means of which a substrate can be deposited above a ring section (63) of the storage element. (Fig. 5).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to utilize inwardly and upwardly directed projections

The suggestion/motivation would have been to provide support to the substrate. (Kato, col. 2, ines 26-43).

For claim 7, Kato teaches the projections have a horizontally directed contact surface. (Fig. 5).

C. Claims 9-11

Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abe as applied to claims 1 and 8 above, and further in view of US Application No. 2002/0002946 to Tanaka et al. ("Tanaka").

For claim 9, Abe does not teach a means for producing clean air.

Tanaka teaches a means for producing clean air to produce a clean room atmosphere. (Fig. 3, para. [0061]):

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to utilize a means for producing clean air with the teachings of Abe.

The suggestion/motivation would have been to reduce contamination by dust or other particles. (Tanaka, para. [0013]).

For claim 10, an overpressure can be produced in the interior of the device disclosed in Tanaka. (para. [0061]).

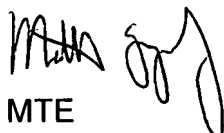
Regarding claim 11, Tanaka teaches a means for discharging a gas from within the device. (para. [0061]).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew Eggerding whose telephone number is (571) 272-8012. The examiner can normally be reached on Monday-Friday, 8:30 AM-5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on (571) 272-1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


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PRIMARY EXAMINER